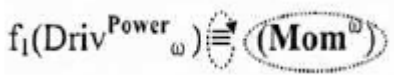
Generator starting device $f_1(Gener^{\pm U}{}_{\varphi 1\text{-}3})$ by means of asynchronous drive $f_1(Driv^{Power}{}_{\omega})$, including drive structure $f_1(Driv^{Power}{}_{\omega})$, wherein interaction of elements is subject to description using analytical expression:

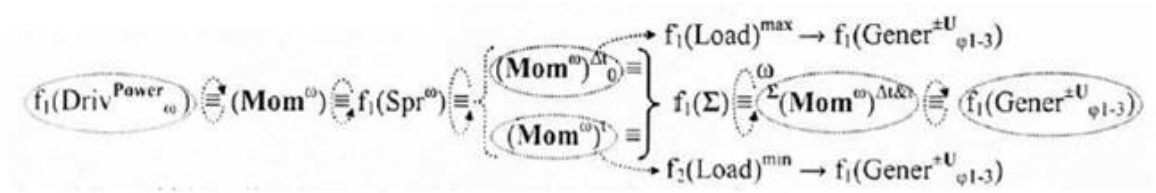


,

comprises asynchronous electric drive with rotor, mechanically connected to rotor of generator $f_1(Gener^{\pm U}{}_{\varphi 1\text{-}3})$ by means of elastic element in the form of helical spring for transmission of rotational torque (Mom^{ω}) to the generator rotor in accordance with analytical expression of the form:

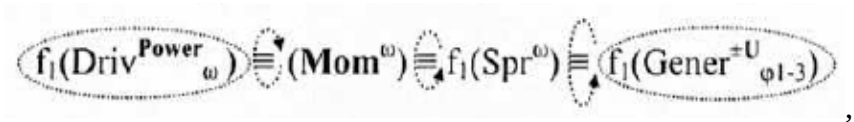
,

wherein (≡) denotes sequential transmission of torque through structural elements of the device. Wherein the drive and the generator are mechanically connected through the elastic element in the form of helical spring installed between drive shaft and generator shaft of generator $f_1(Gener^{\pm U}{}_{\varphi 1\text{-}3})$, coaxially with the drive shaft and the generator shaft. Spring $f_1(Spr^{\omega})$ is made of steel elastic alloy and has calculated stiffness coefficient, which ensures accumulation and transmission of rotational torque (Mom^{ω}) during generator starting, as well as damping of high-frequency fluctuations of generator output voltage. The drive and generator shafts are installed in rigidly fixed housing and have support bearings. Wherein interaction of elements of the device corresponds to analytical dependence:



,

which describes physical principle of energy connection between drive rotor and generator rotor through damping elastic element, or in minimized notation form as analytical dependence of the form:



,

and ensures axial alignment and stable torque transmission. Wherein structural design of the elastic element ensures reduction in energy consumption at initial stage of generator starting.